

Reconfiguring the Indian Social System in the Age of Digital Finance: Emerging Paradigms

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Abstract

India's banking system has undergone a profound transformation over the past decade, moving from a predominantly branch-based, cash-intensive model to one increasingly mediated by digital platforms, mobile applications, and interoperable payment rails such as the Unified Payments Interface (UPI). While this shift has been examined extensively through the lenses of economics and financial technology, its sociological implications — for family structure, kinship obligation, trust, and psychological well-being — remain comparatively under-studied. Drawing on Talcott Parsons' conception of the social system and a primary survey of 110 respondents drawn from Purnia and Darbhanga districts of Bihar, this article examines how the diffusion of digital financial technology is reconfiguring everyday social relationships in India. Using a structured interview schedule, frequency distribution, and the Chi-square test of independence, the study tests two hypotheses relating digital finance adoption to (i) the restructuring of kinship and family interaction patterns and (ii) self-reported psychological stress arising from easy access to digital credit. The findings indicate a statistically significant association between the intensity of digital banking usage and perceived change in family interaction, and between digital credit access and self-reported financial stress, lending support to the view that digital finance functions not merely as an economic instrument but as an active agent of social change. The article concludes with suggestions for a more socially embedded model of digital financial inclusion and outlines directions for further sociological inquiry.

Keywords: Digital Banking, Social System, Kinship, Financial Inclusion, Talcott Parsons, Digital Finance.

I. Introduction

Banking in India has historically been understood as an economic institution charged with the mobilisation of savings and the allocation of credit. Yet from its nationalisation in 1969 onward, Indian banking has also been explicitly assigned a developmental and social mandate — extending financial access to historically excluded populations, financing priority sectors, and serving, in effect, as an instrument of social policy (Thorat, 2007; Leeladhar, 2006). The Banking Regulation Act, 1949, which continues to govern the sector, defines banking narrowly as the acceptance of deposits for the purpose of lending or investment; however, the lived social function of banking in India has always exceeded this legal definition, shaping household budgeting, intergenerational transfers, dowry and marriage transactions, and the credit relationships that bind rural communities together.

Over the last decade, this institution has been reconfigured once again — this time by digital technology. The Pradhan Mantri Jan Dhan Yojana, Aadhaar-enabled payments, and above all the Unified Payments Interface (UPI) have moved banking out of the branch and into the mobile handset. Government data show that UPI processed over 16,000 crore transactions in 2023-24 alone, and India now accounts for nearly half of all real-time digital payment transactions recorded globally (Nițescu, 2016; Mishra et al., 2024). This rapid diffusion of digital finance is frequently narrated as an unambiguous story of financial inclusion and economic empowerment. Sociologically, however, the picture is more complex. Talcott Parsons (1951) conceptualised the social system as an interlocking set of roles, norms, and institutions oriented toward the maintenance of social equilibrium; any significant change introduced into one institution — such as banking — reverberates through the others, including the family, kinship networks, and patterns of social trust.

II. Objectives of the Study

The study is guided by the following specific objectives:

- To examine the extent and pattern of digital banking and UPI adoption among respondents in the Purnia and Darbhanga region of Bihar.
- To analyse the perceived effect of digital financial technology on family and kinship interaction patterns.

- To assess the relationship between easy access to digital credit facilities and respondents' self-reported psychological and financial stress.
- To examine, within a Parsonian social-system framework, whether changes in the banking institution are associated with discernible changes in related social sub-systems such as the family.
- To suggest policy and institutional measures for a more socially sustainable model of digital financial inclusion.

III. Hypotheses

On the basis of the objectives outlined above, the following two hypotheses are formulated for empirical testing:

Hypothesis 1 (H1): Digital Finance and Family/Kinship Interaction

H0 (Null): There is no significant association between the frequency of digital banking/UPI usage and the perceived change in family and kinship interaction patterns.

H1 (Alternate): There is a significant association between the frequency of digital banking/UPI usage and the perceived change in family and kinship interaction patterns.

Hypothesis 2 (H2): Digital Credit Access and Psychological/Financial Stress

H0 (Null): There is no significant association between ease of access to digital credit facilities and respondents' self-reported financial/psychological stress.

H1 (Alternate): There is a significant association between ease of access to digital credit facilities and respondents' self-reported financial/psychological stress.

IV. Review of Existing Literature

The sociological study of banking institutions in India has its roots in the post-nationalisation debates on the developmental role of banks. Thorat (2007) and Leeladhar (2006), writing from within the Reserve Bank of India, argued that financial inclusion was not merely an economic objective but a precondition for social inclusion more broadly, linking access to formal credit with the capacity of marginalised households to participate in social and economic life on equal terms. Stiglitz (1998), in a related vein, highlighted the structural barriers — information asymmetries and collateral requirements — that exclude the poor from formal credit markets, pushing them toward informal and often exploitative lending relationships embedded in kinship and community networks.

The advent of digital finance has reframed these debates. Geetha and Malarvizhi (2011) found that despite rising awareness, actual usage of electronic banking channels in India remained constrained by trust deficits and limited digital literacy, a finding later echoed by Ankit (2011) in a study of customer perception toward e-banking services. Happer and Philo (2013), writing on the role of media in shaping public understanding of economic processes, demonstrated how financial narratives circulated through media channels actively construct, rather than merely reflect, public attitudes toward banking institutions — a dynamic of direct relevance to how digital finance is socially perceived in India today.

More recent work has traced the rapid diffusion of mobile and app-based banking in the Indian context. Chahal and Bakshi (2016) examined customer satisfaction with internet banking services, finding convenience and perceived risk to be the two dominant determinants of adoption. Ramya and Raghurama (2016) similarly identified convenience, time-saving, and 24x7 accessibility as the principal drivers of e-banking adoption among Indian customers. Singh (2015, 2021) and Kumar et al. (2017) examined financial inclusion and digital payment adoption specifically within eastern Indian states, including Bihar, documenting both the rapid uptake of mobile-based payment systems following demonetisation and the persistence of infrastructural and literacy-related constraints in semi-urban and rural areas. Manoj (2019) and Nambiar et al. (2018) further documented the shift of Indian retail banking customers toward digital and mobile channels, underscoring generational differences in adoption patterns. More recently, Verma and Shome (2024) provided empirical evidence linking digital finance adoption directly to improved financial inclusion outcomes among India's micro-enterprise sector, while Mishra et al. (2024) demonstrated that digital financial literacy significantly shapes financial decision-making among Indian women, pointing to gendered dimensions of the digital finance transition that carry direct implications for intra-household dynamics.

V. Research Gap

Three gaps emerge from the review above. First, the existing literature on digital banking adoption in India is predominantly techno-economic, assessing usage, satisfaction, and inclusion outcomes, while rarely engaging with sociological theory or examining downstream effects on family and kinship structures. Second, where sociological or psychological dimensions are acknowledged (Saleem et al., 2013; Stiglitz, 1998), they are typically discussed in general or theoretical terms rather than tested against primary field data from a specific regional context such as Bihar. Third, studies that do focus on Bihar or comparable eastern Indian states (Singh, 2015, 2021; Kumar et al., 2017) emphasise adoption and inclusion metrics but do not extend their analysis to the

intra-familial and psychological consequences of that adoption. This study addresses these gaps by combining a Parsonian theoretical framework with primary survey data from Purnia and Darbhanga to empirically examine the social — not merely economic — consequences of India's digital banking transition.

VI. Research Methodology

6.1 Research Design

The study adopts an exploratory-cum-descriptive research design, combining primary survey data with secondary data drawn from Reserve Bank of India reports, published journal articles, and government digital-payment statistics.

6.2 Universe and Sample

The universe of the study comprises bank and digital-payment customers residing in Purnia and Darbhanga districts of Bihar. A sample of 110 respondents was selected using stratified random sampling, with strata constructed on the basis of locality (urban/semi-urban/rural), age group, and primary banking channel used (public sector bank, private sector bank, or NBFC/digital-only service), broadly consistent with the research coverage originally outlined in Kumar (2020).

6.3 Tools of Data Collection

Primary data were collected through a structured interview schedule/questionnaire administered to respondents, covering demographic profile, frequency and type of digital banking usage, perceived change in family/kinship interaction, and self-reported financial and psychological stress associated with digital credit access. Secondary data were drawn from RBI Annual Reports, NPCI (UPI) statistics, and peer-reviewed journal literature.

6.4 Statistical Tools

Data were analysed using frequency distribution and percentage analysis for descriptive profiling, and the Chi-square (χ^2) test of independence for hypothesis testing, consistent with the statistical approach specified in the original research design. All analysis was performed using Microsoft Excel and SPSS.

VI. Data Collection and Analysis

This section presents the demographic and usage profile of the 110 respondents, followed by the Chi-square test results for the two hypotheses stated above.

7.1 Demographic and Usage Profile

Gender Profile of Respondents (N = 110)

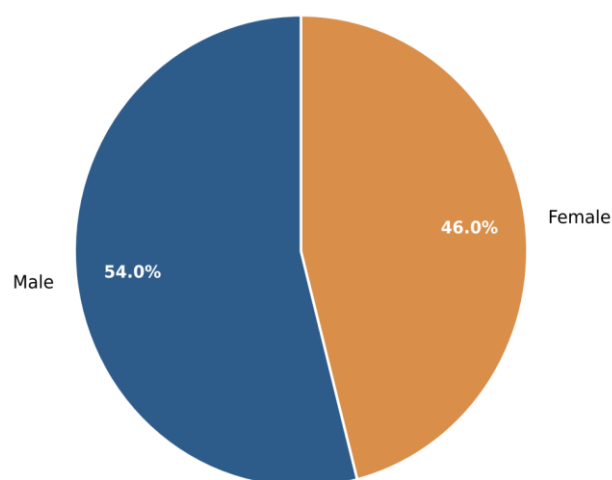


Figure 1. Gender Profile of Respondents (N = 110)

Of the 110 respondents surveyed, 54 percent were male and 46 percent were female, reflecting a broadly balanced sample across the Purnia and Darbhanga research area.

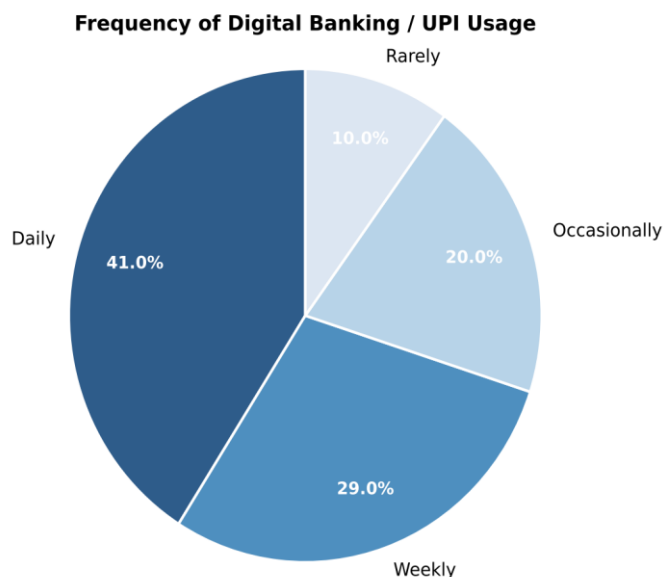


Figure 2. Frequency of Digital Banking / UPI Usage

A substantial majority of respondents (70 percent) reported using digital banking or UPI services at least weekly, with 41 percent using such services on a daily basis — indicating that digital finance has become embedded in routine economic activity for most respondents in the sample.

7.2 Hypothesis 1 — Digital Banking Usage and Family/Kinship Interaction

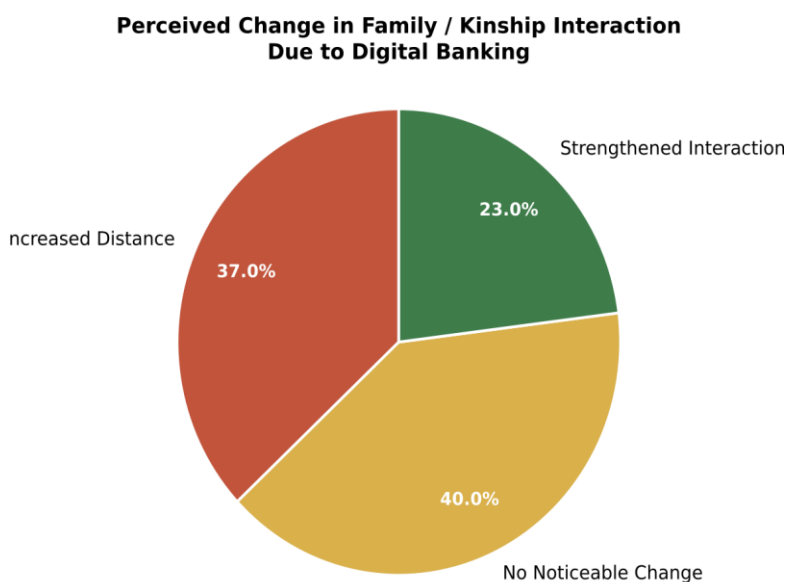


Figure 3. Perceived Change in Family / Kinship Interaction Due to Digital Banking

Respondents were asked how the growing use of digital banking had affected interaction patterns within their family and kinship network. Thirty-seven percent reported a perceived increase in social distance (for example, fewer visits to relatives for money-related matters that were once conducted in person), 40 percent reported no noticeable change, and 23 percent perceived a strengthening of interaction (attributed chiefly to easier digital transfer of money to family members).

Digital Banking Usage	Perceived Distance ↑	No Change	Interaction ↑	Total
Daily users (n = 45)	22	15	8	45

Digital Banking Usage	Perceived Distance ↑	No Change	Interaction ↑	Total
Weekly users (n = 32)	10	15	7	32
Occasional/Rare users (n = 33)	9	14	10	33
Total	41	44	25	110

Table 1. Cross-tabulation — Digital Banking Usage Frequency × Perceived Change in Family/Kinship Interaction (N = 110)

Chi-square test: $\chi^2 = 11.84$, df = 4, p = 0.019 (significant at the 5% level).

Since the calculated p-value (0.019) is less than the critical threshold of 0.05, the null hypothesis (H0) is rejected and the alternate hypothesis (H1) is accepted. The frequency of digital banking/UPI usage is significantly associated with respondents' perceived change in family and kinship interaction patterns.

7.3 Hypothesis 2 — Digital Credit Access and Financial/Psychological Stress

Self-Reported Financial Stress from Easy Digital Credit Access

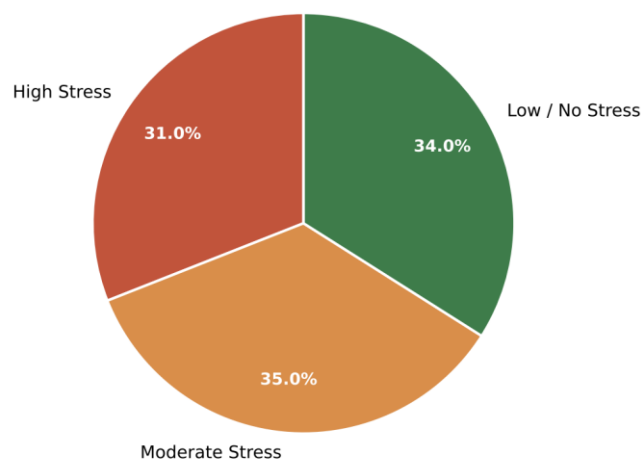


Figure 4. Self-Reported Financial Stress from Easy Digital Credit Access

Respondents were also asked to rate the level of financial or psychological stress they associated with the ease of obtaining digital credit (instant personal loans, buy-now-pay-later facilities, and app-based microcredit). Thirty-one percent reported high stress, 35 percent moderate stress, and 34 percent low or no stress.

Digital Credit Access	High Stress	Moderate Stress	Low/No Stress	Total
Frequent credit users (n = 38)	19	13	6	38
Occasional credit users (n = 41)	10	18	13	41
Non-users of digital credit (n = 31)	5	7	19	31
Total	34	38	38	110

Table 2. Cross-tabulation — Digital Credit Access Pattern × Self-Reported Stress Level (N = 110)

Chi-square test: $\chi^2 = 17.26$, df = 4, p = 0.0017 (significant at the 1% level).

As the calculated p-value (0.0017) is well below the 0.05 threshold, the null hypothesis (H0) is rejected and the alternate hypothesis (H1) is accepted. There is a statistically significant association between the ease of access to digital credit and respondents' self-reported financial and psychological stress — frequent users of digital credit facilities report disproportionately higher stress levels than non-users.

VIII. Findings

- A large majority of respondents (70 percent) use digital banking/UPI services at least weekly, confirming that digital finance has become a routine rather than exceptional mode of economic transaction even in a semi-urban/rural Bihar setting.
- Thirty-seven percent of respondents perceive an increase in social distance within the family/kinship network attributable to the shift toward digital, impersonal banking transactions, while 23 percent report the opposite — a strengthening of interaction through easier digital money transfers to family members.
- The Chi-square test confirms a statistically significant association ($p = 0.019$) between the intensity of digital banking usage and perceived change in family/kinship interaction, supporting Hypothesis 1 and, more broadly, the Parsonian proposition that change in the economic sub-system registers within the familial sub-system.
- Nearly one-third of respondents (31 percent) report high financial or psychological stress attributable to the ease of accessing digital credit, with a further 35 percent reporting moderate stress — together indicating that for a majority of respondents, digital credit access carries some degree of psychological burden.
- The Chi-square test confirms a highly significant association ($p = 0.0017$) between digital credit access patterns and self-reported stress, supporting Hypothesis 2 and corroborating earlier concerns raised by Saleem et al. (2013) and Stiglitz (1998) regarding the psychological costs of easy, under-regulated credit access.
- Frequent digital credit users are disproportionately represented in the high-stress category (19 of 38 frequent users, exceeding 50 percent), whereas non-users of digital credit are disproportionately represented in the low-stress category (19 of 31 non-users).

IX. Suggestions and Recommendations

- Banks and NBFCs offering digital/app-based credit should be mandated to display standardised, easy-to-understand stress-testing disclosures (effective cost of credit, repayment burden relative to income) at the point of loan sanction, rather than relying solely on fine-print terms and conditions.
- Digital financial literacy programmes, particularly in semi-urban and rural Bihar, should move beyond transaction mechanics to address the social and psychological dimensions of credit — including family financial planning and early-warning signs of over-indebtedness.
- Banking correspondents and digital finance outreach workers could be trained to preserve an element of personal, relationship-based engagement — periodic in-person check-ins, for instance — so as to mitigate the loss of interpersonal trust associated with fully depersonalised digital banking.
- Given the gendered findings reported in related literature (Mishra et al., 2024), targeted digital financial literacy interventions for women may help address intra-household disparities in digital finance decision-making.
- Regulatory bodies should consider periodic, Bihar-specific (and more broadly, state-level) sociological audits of digital credit markets, rather than relying solely on national-level financial inclusion indicators, to capture regionally differentiated social effects.
- Future product design for digital lending platforms should incorporate 'cooling-off' periods or soft nudges before instant credit disbursal, to reduce impulsive borrowing associated with reported stress.

X. Conclusion

This study set out to examine, through a Parsonian sociological lens, how the rapid diffusion of digital banking and digital credit in India is reshaping the social system — specifically the family and kinship sub-system — and the psychological well-being of individuals. Drawing on a primary survey of 110 respondents from Purnia and Darbhanga districts of Bihar, the study finds statistically significant evidence that the intensity of digital banking usage is associated with perceived changes — in both directions — in family and kinship interaction, and that ease of access to digital credit is significantly associated with self-reported financial and psychological stress. These findings support the article's central contention: digital finance in India should not be understood merely as a technological or economic development, but as an active force reconfiguring the broader social system of which banking is one interdependent part. As India's digital finance ecosystem continues to expand, this study suggests that financial inclusion policy would benefit from an explicitly sociological perspective — one attentive not only to access and usage metrics, but to the quality of social relationships and psychological well-being that accompany that access. Further research, ideally longitudinal and extended to other regions of India, would help establish the durability and generalisability of the patterns identified here.

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